



**SPACE SHUTTLE PROGRAM**  
Space Shuttle Vehicle Engineering Office  
NASA Johnson Space Center, Houston, Texas



# **STS-111 FLIGHT READINESS REVIEW**

**FERRY READINESS  
May 16, 2002**



## **STS-111 Flight Readiness Review Ferry Readiness**

Presenter **Don L. McCormack, Jr.**

Date **May 16, 2002**

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### **Ferry Plan Summary**

- Ferry Planning Readiness Review conducted on 5/9/02 with no issues identified
- Ferry Flight Readiness Review to be conducted one day prior to planned ferry date
- Hardware summary:
  - Orbiter: OV-105 (Endeavour)
    - NEOM ferry weight (lbs): 219144 (no fluids off-loaded)
    - NEOM ferry center of gravity (in): X<sub>o</sub> 1116.6 Y<sub>o</sub> -0.7 Z<sub>o</sub> 374.1
      - » NEOM mass properties are within specified limits – requires 922 lb of Orbiter middeck ballast (ballast kit available at DFRC)
  - Attach hardware and ferry plugs are ready to support
  - Tailcone 2 ready to support
  - Shuttle Carrier Aircraft (SCA): NASA 911
- Configuration drawings have been released



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### **Ferry Plan Summary - Continued**

- DFRC seven day turnaround with ready-to-ferry on day seven (early afternoon)
  - Most likely departure will be morning of day eight
- Flight plan – 3-flight legs over a 2-day period will be required to complete the ferry flight:
  - Day 1: Flight leg 1 (refuel/rest overnight stop)
  - Day 2: Flight legs 2 and 3 (refuel stop and arrival at KSC SLF)
- Prime landing sites, weather alternates and emergency landing fields selected
- Pathfinder: USAF KC-135 or NASA KC-135, if available (purge equipment not required)
- Purge – purge equipment will not be deployed since it is highly unlikely that it would be required at ferry overnight stop locations
  - Purge circuit 1 (OMS/RCS – ambient air temperature below 45 °F)
  - Purge circuit 2 (not required)



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### **STS-111 FERRY READINESS STATEMENT**

**A Ferry Planning Readiness Review was conducted in accordance with the Space Shuttle Vehicle Engineering Office flight preparation process plan contained in NSTS 08117, Requirements and Procedures for Certification of Flight Readiness. This certifies that aircraft, equipment, and ferry requirements are ready to support Orbiter ferry operations.**

**Don L. McCormack, Jr.  
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